



Japan  
Fund for  
Poverty  
Reduction

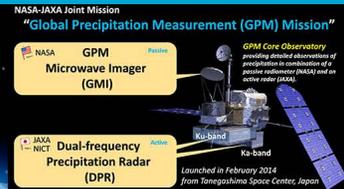


URBAN  
CLIMATE CHANGE  
RESILIENCE  
TRUST FUND

# Catalyzing Innovations and Digitization for Safe, Sustainable, Resilient, and Inclusive Water Management

LAUNCH OF E-MARKETPLACE AND PUBLICATIONS

15–19 March 2021



## Satellite-based Global Rainfall Map and Applications for IWRM and Water-related Disaster Resilience in Asia-Pacific

Name of Organization **Japan Aerospace Exploration Agency**

Location **Japan**

Year Registered **2003**



### Technology Profile

The **Global Satellite Mapping of Precipitation (GSMaP)**, based on multiple satellites, is one of Japan Aerospace Exploration Agency's (JAXA) precipitation datasets generated under the 22-year precipitation observation from space that JAXA has conducted: Tropical Rainfall Measuring Mission (TRMM) and the Global Precipitation Measurement (GPM) Mission with international partnerships. The missions are based on the idea that accurate determination of rainfall distribution—which is the input to water resources, and improvement of predicting and preparing techniques for abnormal weather—is essential in solving the world's water problems such as water shortages and floods, which can cause food shortages, epidemics, and so on. The GSMaP provides

a highly accurate global rainfall map with 0.1 degrees (latitude and longitude) spatial resolution and a 1-hour temporal resolution.

The GSMaP has the potential to be used for Integrated Water Resources Management (IWRM), especially in the area where ground rainfall observation equipment is not sufficiently installed. In parallel with such data provision, JAXA has supported demonstrations of GSMaP utilization in several application fields, for example: (i) cyclones monitoring, (ii) extreme heavy rainfall and drought monitoring, (iii) landslide warning system, and (iv) global terrestrial hydrological simulation system, which provides historical various data related to land surface and river conditions.

**To know more about our Smart Water Technology:**

[Overview of Global Satellite Mapping of Precipitation \(GSMaP\)](#)

[2020 Typhoons passing over the Philippines and Viet Nam](#)

[Overview of Satellite-based Global Rainfall Map and Applications](#)

The recording of interactive session will be uploaded here.

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